REMARKS/ARGUMENTS

At the time of the Office Action dated January 23, 2008, claims 1-28 were pending in the present application. In the Office Action dated January 23, 2008, all pending claims were rejected. In particular, claims 1-4, 9-14, 16, 18-21 and 26-28 were rejected under 35 U.S.C. § 102(b), and claims 5-8, 15, 17 and 22-25 were rejected under 35 U.S.C. § 103(a). By this paper, claims 1, 10, 12, and 21 are being amended. Applicant respectfully requests reconsideration and allowance of all pending claims.

A. Claims 1-4, 9-14, 16, 18-21 and 26-28 Rejected Under 35 U.S.C. § 102(b)

Claims 1-4, 9-14, 16, 18-21 and 26-28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,429,948 to Rumph et al. (hereinafter, "Rumph"). Applicant respectfully traverses.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP § 2131 (citing Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). "The identical invention must be shown in as complete detail as is contained in the ... claim." Id. (citing Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). In addition, "the reference must be enabling and describe the applicant's claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." In re Paulsen, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

Rumph relates generally to "a digital color copier/printer and method for creating, decomposing and outputting a page image to a print engine which allows for the printing characteristics of individual objects to be optimized...." Rumph, col. 2, lines 21-25. Rumph describes "a printer controller apparatus and method for converting a page image defined using a PDL or the like into print data and printer control commands such that each type of object in the page image is optimally printed." Id., col. 2, lines 38-42.

Claim 1 recites "selecting a compression algorithm for each region based on content of each region and on the capabilities of the imaging device." Claim 1 has been amended to recite that "the compression algorithm for each region is selected so that output quality is not reduced." This amendment is supported by at least paragraphs [64]-[66] of Applicant's specification.

Rumph states that "it is possible to optimize the data compression based on the object type." Rumph, col. 19, lines 44-45. Thus, Rumph refers generally to "optimiz[ing] the data compression," and the "object type" is taken into consideration as part of this optimization. However, Rumph does not disclose that "the compression algorithm for each region is selected so that output quality is not reduced," as recited in amended claim 1. Rumph does not mention anything about "output quality" in the context of selecting compression algorithm(s).

Applicant can only find one example in Rumph that is related to "optimiz[ing] ... data compression based on the object type." In particular, Rumph states that "color image data ... is optimally compressed using 'JPEG' (Joint Photographic Expert Group) techniques" and that "black/white bitmap data and other types of data" are "optimally compressed using binary compression techniques such as run length encoding or CCITT." Rumph, col. 19, lines 44-50. As can be seen, however, this example does not say anything about "output quality" in the context of selecting compression algorithm(s). Although Rumph does not specify what is meant by data being "optimally compressed," Rumph could be referring to the speed of the data compression, the amount of memory that is used, etc. Rumph simply does not disclose the subject matter at issue in claim 1, namely that "the compression algorithm for each region is selected so that output quality is not reduced."

Claim 1 also recites "selecting a compression algorithm for each region based on content of each region." The Examiner asserts that this claimed subject matter is disclosed at col. 10, lines 45-48 of Rumph. Office Action, page 2. Applicant respectfully disagrees. The cited portion of Rumph states: "In all cases, the subsystems are selecting different procedures and data based on the type of object they are processing, and therefore produce different processing results for different object types." Rumph, col. 10, lines 45-48. This does not disclose "selecting a compression algorithm for

each region based on content of each region," as recited in claim 1. The cited portion of Rumph does not say anything at all about "selecting a compression algorithm." The cited portion of Rumph refers generally to "selecting different procedures and data," but it does not disclose "selecting a compression algorithm," as recited in claim 1. Because the cited portion of Rumph does not disclose "selecting a compression algorithm," it follows that the cited portion of Rumph also does not disclose that the compression algorithm is selected "based on content of each region," as recited in claim 1.

Claim 1 also recites "obtaining capabilities of an imaging device." The Examiner asserts that this claimed subject matter is disclosed at col. 9, line 59 to col. 10, line 11 of Rumph. Office Action, page 2. Applicant respectfully disagrees.

The cited portion of Rumph states: "In addition to halftone selections, many additional image processing subsystems may be controlled by metabits in the image processing system 1710 to produce variable results depending on the object...." Rumph, col. 9, lines 59-62. However, this does not disclose "obtaining capabilities of an imaging device," as recited in claim 1. Rather, this portion of Rumph refers to controlling image processing subsystems. Controlling image processing subsystems is not the same as "obtaining capabilities of an imaging device," as recited in claim 1. Rumph further explains what is meant by controlling image processing subsystems as follows: "[T]he metabits control the plurality of image processing subsystems 1712-1738 on an object by object basis by selecting among a set of metabit mapping registers 1740 ... to select a specific subset of enable lines in each of the object optimized image processing modules and print multiplexer 1712-1730." Id., col. 10, lines 12-18. Thus, Rumph's description of controlling image processing subsystems refers to "select[ing] a specific subset of enable lines." Clearly, this does not disclose "obtaining capabilities of an imaging device," as recited in claim 1.

The cited portion of Rumph also states: "[I]f the printing system has other synchronous data sources 180, such as an input scanner, the metabit channel can be used prior to printing to mix those data streams with the print data coming from the IOT controller 160 through data multiplexer 1730." Rumph, col. 10, lines 5-8. However, this does not disclose "obtaining capabilities of an imaging

device," as recited in claim 1. Rather, this portion of Rumph simply refers to data streams coming from other "synchronous data sources," and how those data streams may be processed. However, Rumph does not say that the processing of those data streams is at all dependent on "capabilities of an imaging device."

Claim 1 also recites "selecting a compression algorithm for each region based on ... the capabilities of the imaging device." The Examiner asserts that this claimed subject matter is disclosed at col. 9, lines 39-43 of Rumph. Office Action, page 2. Applicant respectfully disagrees. The cited portion of Rumph states:

> [T]his invention further provides that each byte of print data from data FIFO 1642 will also be synchronously accompanied by 1, 2, 4 or 8 metabits from output metabit FIFO 1640. These metabits specify the processing to be done to each data byte before being printed. This optimal processing ... varies with each data byte depending upon the object from which each data byte was extracted.

Rumph, col. 9, lines 36-43. This does not disclose "selecting a compression algorithm for each region based on ... the capabilities of the imaging device," as recited in claim 1. The cited portion of Rumph does not say anything at all about "the capabilities of the imaging device." The cited portion of Rumph does refer to "metabits." However, as will be explained below, the "metabits" referred to by Rumph do not indicate anything about "the capabilities of the imaging device," as recited in claim 1.

Rumph defines "metabit information" as "information about how best to render each byte of print data." Rumph, col. 2, lines 51-52. Rumph states that the "metabit information" is "generate[d] ... based on the object type of the various objects forming the page image." Id., col. 2, lines 51-53. More specifically, Rumph states: "The metabits are either automatically generated by a metabit generating means which analyzes each object to determine its type, or are explicitly set by the page image creator during the creation of the PDL description of the page image." Id., col. 3, lines 62-66. Rumph also states that the "metabit data [is] generated from the rendering tags," which "are used to control the command instruction and data generating system, the IOT controller and/or the IOT to optimize the printing by the IOT on an object-by-object basis." Id., abstract. Thus, as can be seen,

the "metabit information" described by Rumph depends on the objects forming the page image. However, the cited portion of Rumph does not describe any relationship between the "metabit information" and "the capabilities of the imaging device," as recited in claim 1.

Claim 1 also recites "assembling the compressed regions into a mixed raster format." The Examiner asserts that this claimed subject matter is disclosed at col. 7, lines 4-7 of Rumph. Office Action, page 3. Applicant respectfully disagrees. The cited portion of Rumph states: "[T]he object optimizing electronic subsystem (OOESS) 100 for converting the PDL form of the page image into raster data usable by the image output terminal (IOT) 170 is preferably provided by using a general purpose computer...." Rumph, col. 7, lines 4-7. Thus, the cited portion of Rumph indicates that the OOESS 100 outputs "raster data." However, "raster data" is not the same as "a mixed raster format," as recited in claim 1. Rumph does not indicate that the OOESS 100 "assembl[es] ... compressed regions into a mixed raster format," as recited in claim 1. In fact, the phrase "mixed raster" is not used anywhere in Rumph.

For at least the foregoing reasons, Applicant respectfully submits that claim 1 is allowable. Accordingly, Applicant respectfully requests that the rejection of claim 1 be withdrawn.

Claims 2-4 and 9-11 depend from claim 1. Claims 12 and 21 include subject matter that is similar to the subject matter discussed above in relation to claim 1. Claims 13-14, 16, and 18-20 depend from claim 12. Claims 26-28 depend from claim 21. Accordingly, Applicant respectfully requests that the rejection of claims 2-4, 9-14, 16, 18-21 and 26-28 be withdrawn for at least the same reasons as those presented above in relation to claim 1.

Applicant also presents the following additional reasons why claim 10 is allowable. Claim 10 has been amended to recite that "each compression algorithm is ranked according to its performance capabilities relative to the region type and what imaging processing factors would result in a loss of output quality." This amendment is supported by at least paragraph [73] of Applicant's specification.

Rumph does not disclose the use of "compression rankings" at all. The Examiner asserts that "compression rankings" are disclosed by col. 2, lines 43-44 of Rumph. See Office Action, page 4.

Applicant respectfully disagrees. This portion of Rumph refers to a "method for processing the page image such that the objects of the page image are processed optimally based on their object type, including using optimal compression and decompression techniques for each object type." As can be seen, Rumph does not say anything about "compression rankings." Rumph's general reference to "optimal compression ... techniques" does not disclose "compression rankings," as claimed. The use of "optimal compression ... techniques" does not necessarily involve the use of "compression rankings."

Moreover, even if Rumph did disclose the use of "compression rankings," which is not conceded, Rumph certainly does not disclose that "each compression algorithm is ranked according to its performance capabilities relative to the region type and what imaging processing factors would result in a loss of output quality," as recited in amended claim 10. Accordingly, Applicant respectfully submits that claim 10 is allowable, and requests that the rejection of claim 10 be withdrawn.

B. Claims 5-8, 15, 17 and 22-25 Rejected Under 35 U.S.C. § 103(a)

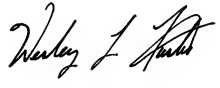
Claims 5-8, 15, 17 and 22-25 stand rejected under 35 U.S.C. § 103(a) based on Rumph in view of U.S. Patent Application Publication No. 2002-0099884 to Chang *et al.* (hereinafter, "Chang"). Applicant respectfully traverses.

Claims 5-8 depend from claim 1. Claims 15 and 17 depend from claim 12, which includes subject matter that is similar to the subject matter discussed above in relation to claim 1. Claims 22-25 depend from claim 21, which includes subject matter that is similar to the subject matter discussed above in relation to claim 1. Accordingly, Applicant respectfully requests that the rejection of claims 5-8, 15, 17 and 22-25 be withdrawn for at least the same reasons as those presented above in relation to claim 1.

C. Conclusion

Applicant respectfully asserts that all pending claims are allowable over the cited references, and request that a timely Notice of Allowance be issued in this case. If there are any remaining issues preventing allowance of the pending claims that may be clarified by telephone, the Examiner is requested to call the undersigned.

Respectfully submitted,



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